UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/518,526	02/02/2005	Hasse Sinivaara	60282.00226	6794

32294   7590   04/24/2008
SQUIRE, SANDERS & DEMPSEY L.L.P.
8000 TOWERS CRESCENT DRIVE
14TH FLOOR
VIENNA, VA 22182-2700

EXAMINER
LY, NGHI H

ART UNIT	PAPER NUMBER
2617	

MAIL DATE	DELIVERY MODE
04/24/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

	Application No.	Applicant(s)
Office Action Summary	10/518,526	SINIVAARA, HASSE
	Examiner	Art Unit	
	NGHI H. LY	2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *23 January 2008*.
2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.
3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-48* is/are pending in the application.
  4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5)☐ Claim(s) _____ is/are allowed.
6)☒ Claim(s) *1-48* is/are rejected.
7)☐ Claim(s) _____ is/are objected to.
8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.
10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.
    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
    a)☐ All b)☐ Some * c)☐ None of:
      1.☐ Certified copies of the priority documents have been received.
      2.☐ Certified copies of the priority documents have been received in Application No. _____.
      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)
2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3)☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .
5)☐ Notice of Informal Patent Application
6)☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1.   A request for continued examination under 37 CFR 1.114, including the fee set

forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this

application is eligible for continued examination under 37 CFR 1.114, and the fee set

forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action

has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on

01/23/08 has been entered.

Claim Rejections - 35 USC § 103

2.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

3.   Claims 1-48 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Awater et al (US 7,173,918) in view of Crosbie (US 7,146,636).

        Regarding claims 1, 11, 14, 24, 27, 37, 40, 41, 42, 43, 46, 47 and 48, Awater

teaches a method comprising the roaming support information being determined on the

basis of access point status information determined in a plurality of access points and

communication status information related to the plurality of access points processing in

the load control device (see column 2, lines 54-58, column 3, line 15 to column 4, line 7,

column 4, lines 21-58, column 8, lines 3-28, column 9, lines 43-50, column 10, lines 33-39, column 12, lines 61-63 and column 13, lines 55-61), the roaming support information by an access point related load based roaming analysis (see column 2, lines 54-58, column 3, line 15 to column 4, line 7, column 4, lines 21-58, column 8, lines 3-28, column 9, lines 43-50, column 10, lines 33-39, column 12, lines 61-63 and column 13, lines 55-61), deciding on the basis of a result of the access point related load based roaming analysis (also see column 2, lines 54-58, column 3, line 15 to column 4, line 7, column 4, lines 21-58, column 8, lines 3-28, column 9, lines 43-50, column 10, lines 33-39, column 12, lines 61-63 and column 13, lines 55-61), whether the subscriber terminal is to be associated with another one of the plurality of access points (also see column 2, lines 54-58, column 3, line 15 to column 4, line 7, column 4, lines 21-58, column 8, lines 3-28, column 9, lines 43-50, column 10, lines 33-39, column 12, lines 61-63 and column 13, lines 55-61), a load control device being located externally to the subscriber terminal (see column 11, lines 28-37, see "the load value is calculated by processing unit 302", and see fig.2c, processing unit 302, and column 5, lines 28-32, see "for use in access point").

Awater does not specifically disclose a method comprising receiving roaming support information by means of signaling from a subscriber terminal via an interface to a load control device being located externally to the subscriber terminal, and if so, sending a command to a serving access point associated with the subscriber terminal, the command instructing the serving access point to initialize roaming of the subscriber terminal to the another one of the plurality of access points.

Crosbie teaches a method comprising receiving roaming support information by means of signaling from a subscriber terminal via an interface to a load control device being located externally to the subscriber terminal (see column 7, lines 19-45), and if so, sending a command to a serving access point associated with the subscriber terminal, the command instructing the serving access point to initialize roaming of the subscriber terminal to the another one of the plurality of access points (also see column 7, lines 19-45).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the teaching of Crosbie into the system of Awater in order to transfer wireless connections between WLAN subsets or channels having different access points (see Crosbie, Abstract).

Regarding claims 2, 15 and 28, Awater teaches the access point status information comprises an access point identification element and an access point load status indicator determined in a respective access point (see Abstract and column 3, lines 5-37).

Regarding claims 3, 16 and 29, Awater teaches in the step of determining communication status information on the basis of a received signal strength indicator indicating the received signal strength of the plurality of access (see column 7, lines 29-43 and column 8, lines 3-13).

Regarding claims 4, 17 and 30, Awater teaches in the step of determining, the communication status information on the basis of a carrier to interference ratio per each access point (see column 7, lines 29-43 and column 8, lines 3-13).

Regarding claims 5, 18 and 31, Awater teaches in the step of determining the

communication status information on the basis of a terminal transmit power status (see

column 7, lines 29-43 and column 8, lines 3-13).

Regarding claims 6, 19 and 32, Awater teaches the roaming support information,

obtained by processing the received access point status information and the

communication status information (see column 3, lines 5-14, column 9, lines 43-50,

column 10, lines 33-39 and column 13, lines 55-61), comprises statistics of access point

related communication status and load information derived from the access point status

information (see column 2, lines 54-58, column 9, lines 43-50, column 10, lines 33-39

and column 13, lines 55-61).

Regarding claims 7, 20 and 33, Awater teaches in the processing, in the load

control device, the roaming support information by the access point related load based

roaming analysis (see column 9, lines 43-50, column 10, lines 33-39, column 12, lines

61-63 and column 13, lines 55-61), comprises using of a hand-off algorithm to calculate

load and connection quality situations for the plurality of access points on the basis of

the roaming support information and to determine an optimal access point for being

associated with the subscriber terminal (see Abstract, column 2, lines 54-58, column 8,

lines 8-13, column 9, lines 43-50, column 10, lines 33-39, column 12, lines 61-63 and

column 13, lines 55-61).

Regarding claims 8, 13, 21, 26, 34 and 39, Awater teaches using of processing

parameters the access point related load based roaming analysis and derived from the

roaming support information (see column 3, line 15 to column 4, line 7, column 4, lines

21-58, column 8, lines 3-28, column 9, lines 43-50, column 10, lines 33-39, column 12,

lines 61-63 and column 13, lines 55-61), wherein the processing parameters are

differently weighted in the access point related load based roaming analysis (see

Abstract, column 2, lines 54-58, column 3, lines 5-14, column 10, lines 33-39, column

12, lines 61-63).

Regarding claims 9, 10, 22, 23, 35 and 36, Awater teaches the load control

device is located in at least one of the plurality of access points (see column 2, lines 54-

58, column 3, line 15 to column 4, line 7, column 4, lines 21-58, column 8, lines 3-28,

column 10, lines 33-39, column 12, lines 61-63 and column 13, lines 55-61).

Regarding claims 12, 25 and 38, Awater teaches the access point internal

monitoring information comprises at least one of a retransmit rate to associated

subscriber terminals, back-off windows, and a net allocation vector for a respective one

of the plurality of access points (see column 3, line 15 to column 4, line 7, column 4,

lines 21-58, column 8, lines 3-28, column 9, lines 43-50, column 10, lines 33-39, column

12, lines 61-63 and column 13, lines 55-61).

Regarding claim 44, Awater teaches the computer program product comprises a

medium readable by the data processing apparatus (see column 3, lines 5-14, column

3, line 15 to column 4, line 7, column 4, lines 21-58, column 8, lines 3-28, column 9,

lines 43-50, column 10, lines 33-39, column 12, lines 61-63 and column 13, lines 55-

61), on which the software code portions are stored (see column 2, lines 54-58, column

9, lines 43-50, column 10, lines 33-39, column 12, lines 61-63 and column 13, lines 55-

61).

Regarding claim 45, Awater teaches the computer program product is directly

loadable into an internal memory of the data processing apparatus (see column 3, lines

5-14, column 9, lines 43-50, column 10, lines 33-39, column 12, lines 61-63 and column

13, lines 55-61).

Response to Arguments

4.   Applicant's arguments with respect to claims 1-48 have been considered but are

moot in view of the new ground(s) of rejection.

Conclusion

5.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to NGHI H. LY whose telephone number is (571)272-7911.

The examiner can normally be reached on 9:30am-8:00pm Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Dwayne Bost can be reached on (571) 272-7023. The fax phone number

for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

USPTO Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Nghi H. Ly

/Nghi H. Ly/
Primary Examiner, Art Unit 2617